

REMARKS

Claim 3 is amended herein. New Claims 4-12 are added. Claim 2 is canceled, without prejudice.

Claim 1 is amended to further recite the subject matter of Claim 2.

Claim 3 is amended to be in independent form and to recite that the coating is obtained by curing.

New Claims 4-8 depend from Claim 1. Support for these claims can be found on page 3, lines 8-31. New Claims 9-10 depend also from Claim 1. Support for these claims can be found on page 5, lines 12-23. New Claims 11-12 depend from Claim 3. Support for these claims can be found on page 6, lines 31-36.

Upon entry of the above amendment, Claims 1 and 3-12 will be all the claims pending in the application.

Applicants' Response to the Rejection of Claim 3
under 35 U.S.C. § 112, second paragraph

Claim 3 was rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

It is asserted that in order to have a coating on a golf ball, the paint composition would need to be cured.

As noted above, Applicants have amended Claim 3 to additionally recite that the paint composition is cured in order to obtain the coating. Accordingly, Applicants request that the § 112, second paragraph rejection be withdrawn.

Applicants' Response to the Rejection of Claims 1-2 under 35 U.S.C. § 102(e)

Claims 1-2 are rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,352,805 to Taylor et al. (“Taylor”).

Taylor is relied upon as teaching a photocrosslinkable water-dispersible latex compositions for forming a protective overcoat. It is asserted that Taylor also teaches the use of polymer matter particles containing reactive functional groups, such as carbodiimide and aziridine.

Applicants respectfully submit that Taylor does not teach or suggest all of the elements of the claimed invention.

Applicants note that the presently claimed paint composition comprises an aqueous resin having photo-curable functional groups in a molecule, a photoinitiator, and a crosslinker. The crosslinker is selected from a carbodiimide or ethyleneimine base crosslinker.

It is noted that the claimed composition can be effectively applied and bonded to the surface of a golf ball cover. Furthermore, the paint composition is photo-curable which allows for faster curing times compared to that of heat-curable compositions. Thus, the claimed composition allows for more efficient golf ball manufacturing.

Applicants additionally note that the presence of photo-curable functional groups in a molecule denote functional groups that are capable of inducing crosslinking reaction upon exposure to light.

Taylor is directed to an aqueous latex solution and a photopolymerizable component system. In addition, Taylor suggests that the latex particles present in a coating composition may contain suitable crosslinking agents for crosslinking the water-dispersible polymer. *See 3 col. , lines 15-18.*

Taylor further suggests that the water-dispersible polymer may contain functional groups capable of forming covalent bonds with a binder polymer by intermolecular crosslinking, or by reacting with a crosslinking agent. *See col. 7, lines 27-36.* This promotes improved adhesion of the matte particles to the coated layers. Suitable reactive functional groups include hydroxyl, carboxyl, carbodiimide, and the like.

Applicants initially assert that Taylor fails to teach or suggest the claimed photo-curable functional groups such as (meth)acrylic groups, cinnamoyl groups and azido groups. It is noted that though Taylor discloses carbodiimide, it is one of the reactive functional groups contained in the polymer and not used as a crosslinking agent. In the presently claimed invention, “photo-curable groups” are functional groups capable of inducing a crosslinking reaction upon exposure to light. The reactive functional groups in Taylor, such as carbodiimide, do not have a photo-curable function.

Secondly, Applicants submit that Taylor fails to teach or suggest the claimed crosslinking agents. Although Taylor teaches carbodiimide and ethyleneimine, these are not used as

crosslinking agents. Applicants note that in the present invention, the aqueous resin itself is crosslinked, due to the photo-curable functional groups, so that the paint cured product has the strength necessary for a golf ball. Applicants also note that by using a carbodiimide or ethyleneimine base crosslinker, the bond between the aqueous resin and the surface of the golf ball is strengthened and a suitable golf ball coating can be obtained. Taylor does not suggest this mechanism or these effects.

Applicants additionally assert does not teach the photopolymerizable monomer of the present invention. In contrast to the present invention, the coating composition of Taylor has a photo-polymerizable component system that comprises a multifunctional monomer and a photoinitiator. The present invention, however, does not utilize a multifunctional monomer. Further, although a photoinitiator is utilized in the present invention, it is used for the photo-curable functional groups in the aqueous resin. Applicants note that the carbodiimide or ethyleneimine base crosslinker of the present invention are not a photopolymerizable monomers.

In summary, Taylor teaches an overcoat composition comprising a water-dispersible latex and a photopolymerizable monomer. The present invention, on the other hand, comprises an aqueous resin having photo-curable functional groups in a molecule, a photoinitiator, and a carbodiimide or ethyleneimine base crosslinker.

The differences between the present invention and the composition of Taylor are illustrated in the following table.

	The Claimed Invention		Taylor (USP 6,352,805)
A)	an aqueous resin having photo-curable functional groups in a molecule	A)	a water-dispersible latex (not having photo-curable functional groups)
B)	(no photopolymerizable monomer)	B)	photopolymerizable monomer
C)	a photoinitiator	C)	a photoinitiator
D)	a carbodiimide or ethyleneimine base crosslinker (not photopolymerizable)		
			Optionally, a carbodiimide in polymer matte particle

Applicants additionally note that the composition of Taylor is used as a protective overcoat that resists fingerprints, common stains, and spills. The present invention, however, is applied to the exterior surface of golf balls.

Since Taylor fails to teach all of the elements of the claimed invention, Applicants respectfully submit that the § 102 rejection be reconsidered and withdrawn.

Applicants' Response to the Double Patenting Rejection of Claims 1-3

Claim 3 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over claim 2 of copending Application No. 10/662,330.

Claims 1-2 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claim 1 of the copending '330 application.

Applicants have submitted a terminal disclaimer herewith with respect to the '330 application. Applicants note that the filing of a terminal disclaimer to obviate a rejection based on obviousness-type double patenting is not an admission of the propriety of the rejection, and raises neither a presumption nor estoppel on the merits of the rejection. *See* MPEP §804.02.

Applicants therefore request that the double patenting rejection be withdrawn.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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